

# Pesticide

# info

WHAT YOU SHOULD KNOW ABOUT PESTICIDES



## California Department of Pesticide Regulation

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## Pesticides and food: how we test for safety

### Pesticide residues and food

As Americans, we enjoy a plentiful and affordable array of high-quality fruits and vegetables, a key to a healthy food supply that is one of the world's safest. Pesticides have enabled farmers to produce some crops in areas that otherwise would not be suitable, to extend growing seasons, increase crop yields, maintain product quality, and extend shelf life. At the same time, pesticides can pose risks if used improperly or too frequently. All of us want to minimize our exposure to potentially hazardous chemicals, so we have questions about pesticides and food.

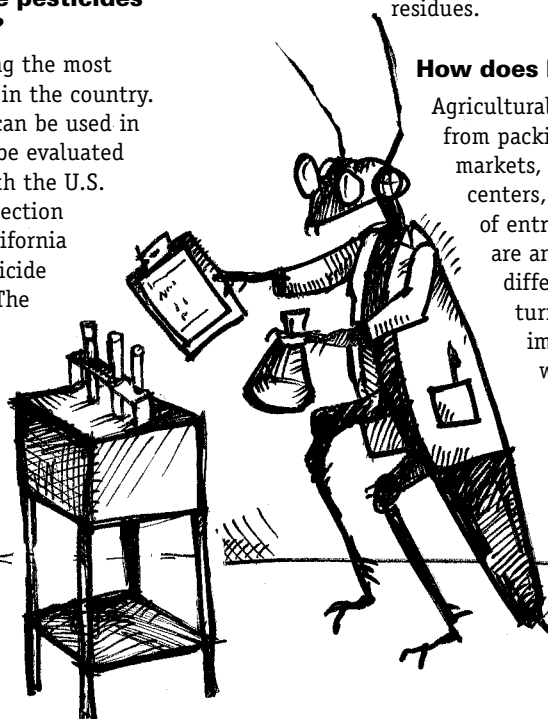
### Who makes sure pesticides are used safely?

Pesticides are among the most regulated products in the country. Before a pesticide can be used in California, it must be evaluated and licensed by both the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation (DPR). The manufacturer must submit test data to show the pesticide will not pose unacceptable risks to workers, consumers, or the environment.

California has the nation's toughest pesticide restrictions and the country's largest and best-trained pesticide enforcement organization to make sure the rules are obeyed. Agricultural commissioners in all of California's 58 counties, assisted by 400 county biologists, are responsible for local enforcement and – with their in-depth knowledge of local conditions – can make sure workers and residents are protected. California was the first state to require reporting of all agricultural pesticide use. DPR also monitors air, soil and water to check for possible contamination of the environment. As a final check, California has the largest state program to sample fresh produce and test it for pesticide residues.

### How does DPR test produce?

Agricultural inspectors take samples from packing sheds, wholesale markets, chainstore distribution centers, retail markets, and ports of entry. Within hours, samples are analyzed for more than 200 different pesticides. This quick turnaround means DPR can immediately track produce with illegal residues. ("Illegal" means the produce has a residue that exceeds the legal limit or is a pesticide not licensed for use on that crop.)



**Food safety experts agree that any small risk from the trace levels of pesticide residues found in produce should not keep you from eating a diet rich in fruits and vegetables.**

An illegal residue is uncommon but if it occurs, investigators track it to the source. If the crop is still in the field, DPR stops the harvest and may order the produce destroyed. If the illegal crop is in the channels of trade, DPR quarantines it and can order it destroyed. Growers who violate the law may face the loss of a crop that can cost them an entire season and tens of thousands of dollars to produce. They are also subject to civil and criminal prosecution, fines, and other penalties.

#### **How many residues do you find?**

About 1 percent of samples tested have illegal residues. No residues are detected in about 65 percent. Remaining samples have detectable pesticides, but most are trace residues well below the legally allowable limits. U.S. EPA sets these limits with an additional margin of safety in mind to protect infants, children, and other sensitive people.

#### **What about imported produce?**

All food products sold in the United States must meet the same safety standards. The results of state and federal residue monitoring programs show that imported produce violates tolerance limits more frequently than domestically grown produce. However, since the tolerances are designed with a margin of safety, an illegal residue does not necessarily equate to a health risk, and the violation rates for both domestic and imported produce are very low. We know from residue testing that some pesticides are detected more often in domestic produce, some only in imported produce, and some in both, sometimes at very different levels. Different chemicals have different health effects, so there is no simple

way to make safety comparisons. Food safety experts agree that any small risk from the trace levels of pesticide residues found in produce should not keep you from eating a diet rich in fruits and vegetables.

#### **Should I be concerned about pesticides in my food?**

Because residues are an inevitable byproduct of pesticide use, many regulations address the public health implications of pesticide use. Therefore, there are very strict restrictions on the amount of pesticide residues allowed in food. For example, to give residues time to break down, there are required waiting periods between a pesticide application and when harvest can occur. For this and other reasons, most fresh fruit and vegetables have little or no detectable residue by the time they reach market, and even less by the time they are washed and served.

The National Institutes of Health has this advice about pesticide residues: "The fact that they are found at all is only due to the significant advances in analytical chemistry. The tests are now so sensitive that the detection level that can be easily reached is equivalent to detecting one teaspoon of salt in one million gallons of water. Levels even lower than that can sometimes be detected. The mere presence of a trace amount of a pesticide does not mean that the product is unhealthy. On the contrary, eating a diet full of a variety of fruits, grains, and vegetables has been shown to significantly decrease your risk of a variety of health problems from high blood pressure to cancer. Variety is the key to good health."

#### **FOOD HANDLING TIPS**

While pesticide residues on and in food are typically at very low levels, there are ways you can further reduce them:

- Rinse fresh fruit and vegetables thoroughly under running water. Running water has an abrasive effect that soaking does not have. Although some pesticides are absorbed into fruits and vegetables, other residues (when present) are found on the surface. Washing will remove most surface waxes and residues, along with dirt and bacterial contamination. Peeling fruits and vegetables also removes surface residues. (But remember that some nutrients and fiber may be lost in peeling.)
- Don't use household soap to wash produce. Most soap is not meant to be consumed and can cause intestinal upset.
- Throw away the outer leaves of leafy vegetables like lettuce and cabbage. Cooking or baking foods reduces some (but not all) pesticide residues.
- Eat a variety of foods, from a variety of sources. This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.

Health professionals recommend that you eat at least five servings of fruits and vegetables every day along with a variety of other foods.



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